LIST OF CLAIMS, SHOWING THE STATUS OF EACH CLAIM

Claims 1-13. (Cancelled)

14. (Currently Amended) A method for obtaining a variant enzyme of a parent enzyme, wherein said variant has ~~having~~ one or more desired properties, wherein said method comprises ~~comprising~~ the steps of:

a) ~~selecting amino acid sites~~ utilizing a three-dimensional rendition of the parent enzyme to identify selected mutation sites;

b) performing site-saturation mutagenesis at the selected mutation sites to create a library of mutation sites;

c) screening the library of mutation sites for variants having one or more desired properties;

d) grading the ~~mutation sites of the~~ variants for the one or more desired properties, to provide feedback;

e) selecting one or more variants having a desirable grade as a template;

f) using the template and feedback to ~~repeat site saturation mutagenesis~~ perform steps b), c), d), and e) ~~at~~ on at least one variant ~~mutation sites~~ having a desirable grades to provide a variant enzyme of the parent enzyme, wherein said variant enzyme comprises one or more desired properties ~~and to perform site saturation mutagenesis on new libraries at new sites~~.

15. (Original) The method of claim 14 wherein the one or more desired properties are substrate activity, thermostability, stability relative to reaction environment, ionic strength range of stability, pressure stability, or pH range of stability.

16. (Original) The method of claim 14 wherein the one or more desired properties is substrate activity and thermostability.

17. (Original) The method of claim 14 wherein the enzyme is cutinase.

18. (Currently Amended) A process for the production of a cutinase variant with hydrolytic activity on polyester, wherein the cutinase ~~from Pseudomonas~~ is obtained from a *Pseudomonas* species, the process comprising:

a) utilizing a three-dimensional ~~model~~ rendition of said cutinase to select for ~~mutation~~ amino acid sites likely to demonstrate hydrolytic activity;

b) performing site-saturation mutagenensis at the selected mutation sites to create ~~on a~~ library of variant amino acid sequences;

c) screening the library for variants using assays to detect polyesterase activity and thermostability;

d) grading the ~~mutated~~ sites mutated in the variants as beneficial, neutral or detrimental for both polyesterase activity and thermostability to provide feedback;

d) selecting ~~a~~ at least one variant having at least one beneficial grade;

e) performing steps b), c), and d) to create ~~creating~~ one or more new ~~and repeat~~ libraries using the at least one selected variant and feedback from the grading.

19. (New) The method of Claim 14, wherein said steps b) through f) are repeated.

20. (New) The method of Claim 14, wherein said steps a) through f) are repeated, wherein step a) is performed on the said at least one selected variant.

21. (New) The method of Claim 18, wherein said steps b) through e) are repeated.

22. New) The method of Claim 18, wherein said steps a) through e) are repeated, wherein step a) is performed on the said at least one selected variant.